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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,301	09/28/2001	Simon Lawrence John Stubbs	PA-0111	5224
22840	7590	10/24/2003	EXAMINER	
AMERSHAM BIOSCIENCES PATENT DEPARTMENT 800 CENTENNIAL AVENUE PISCATAWAY, NJ 08855			ROBINSON, HOPE A	
			ART UNIT	PAPER NUMBER
			1653	

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/967,301	Applicant(s) STUBBS ET AL.	
	Examiner Hope A. Robinson	Art Unit 1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 11-18 and 25 is/are rejected.
- 7) ☐ Claim(s) 12-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of Group II (claims 11-18) is acknowledged.

Claim Disposition

2. Claim 25 has been added. Claim 14 has been amended. Claims 1-25 are pending. Claims 11-18 and 25 are under examination.

Claim Objection

3. Claims 12 and 13 are objected to because the claims recite "SEQ ID No.2" which is not the correct sequence notification, which is "SEQ ID NO: ".

Compliance with the sequence rules is required.

Specification

4. The specification is objected to because of the following informalities:
The specification is objected to because on page 6 for example the sequence notation is written as "SEQ ID No.4" instead of "SEQ ID NO:4" which does not comply with the sequence rules. In addition, the amino acids are reported using the one letter codes instead of the three letter codes, see page 10 for example.

Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-18 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 and 14 and the dependent claims hereto are indefinite because the claim recites "and/or" and it is unclear if the slash mark represents "and", "or" or "and or". It is suggested that applicant delete one of the terms from the claim including the slash mark. In addition, the claims are indefinite because the residue positions are not tied to a reference sequence; therefore, it is unclear what is the protein that is only derived? It is suggested that the limitations of claim 12 be incorporated into claim 11. The claims are also unclear as to: which one is the wild type and what is the difference in excitation and or emission spectrum?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 11-18 and 25 are rejected under 35 U.S.C 102(b) as being anticipated by Tsien (WO 96/23810, 8 August 1996).

Tsien report a cDNA that encodes modified green fluorescent proteins (GFP) with a point mutation at position S65 (claim 1, pages 5 and 7) to a Thr mutant (claim 25, page 3) having markedly different excitation and emission spectra from the corresponding products from wild type GFP (abstract and page 6). Tsien disclose a

DNA sequence that encodes the protein set forth in SEQ ID NO:2, 3 and 4 of the instant application and analogs thereof (claims 12-13, see the alignments). Tsien also teach the expression of GFP in *E. coli* (claim 17) under the control of a T7 promoter (page 3). The reference teach the same DNA encoding a fusion protein (claim 14, page 9). In addition, Tsien disclose expression vector, host (claim 15-16) and methods of producing the protein (claim 11, page 27). Therefore, the limitations of the claim is met by this reference.

7. Claims 11-13 and 15-17 are rejected under 35 U.S.C 102(b) as being anticipated by Osumi et al. (U.S. Patent No. 6,194,548, July 1998).

Osumi et al. teach a DNA encoding GFP having mutations at positions S175, F64 and E222 (claim 1, columns 4 and 8) that exhibited different excitation spectrum (column 12). Osumi et al. teach the sequences contained in SEQ ID NOs: 2 and 3 (claims 12-13, see the alignments). The reference reports the use of an expression vector (claim 15, column 8) and expression in *E. coli* (claims 16-17, column 13). Thus, the limitations of the claims are met by this reference.

8. Claims 11 and 15-18 are rejected under 35 U.S.C 102(e) as being anticipated by Bjorn et al. (WO 01/98338 19 June 2000).

Bjorn et al. disclose DNA that encodes modified green fluorescent proteins (GFP) with a point mutation at position F64 and E222 having markedly different excitation and emission spectra from the corresponding products from wild type GFP (claim 1, page 3).

Bjorn et al. disclose COS7 cells as host cells (claim 17, page 19) an expression vector (claim 15) and a DNA construct comprising the vector (claim 16, see page 5).

Therefore, the limitations of the claim is met by this reference.

Conclusion

9. No claims are allowable.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hope A. Robinson whose telephone number is (703)308-6231. The Examiner can normally be reached on Monday - Friday from 9:00 A.M. to 5:30 P.M (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor Christopher S.F. Low, can be reached at (703)308-2932.

Any inquiries of a general nature relating to this application should be directed to the Group Receptionist whose telephone number is (703)308-0196.

Papers related to this application may be submitted by facsimile transmission. The official fax phone number for Technology Center 1600 is (703) 308-2742. Please affix the Examiner's name on a cover sheet attached to your communication should you

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choose to fax your response. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG (November 15, 1989).

Hope A. Robinson, MS 

Patent Examiner


CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600